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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,392	08/27/2003	Katsuhiko Yamaguchi	10517/179	4595
23838	7590	09/07/2006	EXAMINER	
KENYON & KENYON LLP 1500 K STREET N.W. SUITE 700 WASHINGTON, DC 20005			BOTTORFF, CHRISTOPHER	
			ART UNIT	PAPER NUMBER
			3618	

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/648,392	YAMAGUCHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christopher Bottorff	3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 11-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

The amendment filed June 13, 2006 has been entered. Claims 1-18 are pending. Claims 6 and 11-18 are withdrawn as being drawn toward a non-elected species of a non-elected invention. Claims 1-5 and 7-10 are under consideration.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5 and 7-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 1 and 10 both require the consideration of a time since an ignition switch is turned on. However, the original disclosure does not discuss a switch that has a relationship with ignition and, therefore, does not discuss measuring a time since an ignition switch is turned on. The disclosure does disclose a vehicle start switch 80 and measuring time in relation to the start switch 80, but does not establish a relationship between the start switch and ignition. For the purposes of examination, the claimed switch has been interpreted as being any switch device associated with the start of the vehicle.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoyama et al. US 6,026,921.

Aoyama et al. disclose a hybrid vehicle comprising an internal combustion engine 2, a motor 4 which can output power to a driving shaft coupled with an axle, and an electric power storage device/means 15 which can store electric power obtained by converting at least part of power from the internal combustion engine to electric power and can supply the electric power to the motor. See Figure 1. A required driving force setting controller/means is provided in unit 16 which sets a required driving force required for running according to an operation by a driver. See column 6, lines 20-42, and column 8, lines 45-49. Also, a start time controller/means is provided in unit 16 that starts the internal combustion engine after a predetermined time has elapsed since an ignition switch is turned on. See Figure 9; column 8, lines 50-67; and column 9, lines 1-5. Since the vehicle is started when the start command is given but the engine is not started until the predetermined time elapses, the vehicle is running using only the motor when the required driving force set by the required driving force setting controller/means is equal to or smaller than a predetermined driving force that permits motor drive alone.

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See column 8, lines 45-49. Also, since a predetermined time is measured, a timer is inherently present to conduct this measurement. See Figure 9 and column 8, lines 60-64.

An amount of electric power stored in the electric power storage device/means 15 is necessarily equal to or larger than a predetermined value, which is the value of power required to drive the vehicle with the motor, when the vehicle can run using only the motor. In addition, the internal combustion engine 2 is connected to the driving shaft. See Figure 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al. US 6,026,921 in view of Kaiser et al. US 5,979,158.

Aoyama et al. do not disclose that the delay in the start of the internal combustion engine is based on the temperature detected by a temperature detecting controller or that the predetermined time is longer than a preparation time necessary for making a sensor function properly. However, Kaiser et al. teach the desirability of delaying the start of an internal combustion engine by a start time controller 12 based on the temperature  $T_k$  detected by a temperature detecting controller 14. See column 4,

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lines 18-32. Kaiser et al. further teach the desirability of providing a predetermined time after which the internal combustion engine is started that is longer than a preparation time necessary for making a sensor 4, which is used for operation of the internal combustion engine, function properly. See column 4, lines 28-31.

From the teachings of Kaiser et al., delaying the start of the internal combustion engine of Aoyama et al. based on the temperature detected by a temperature detecting controller would have been obvious to one of ordinary skill in the art at the time the invention was made. This would help to increase the efficiency of the system.

From the further teachings of Kaiser et al., providing the predetermined time after which the internal combustion engine of Aoyama et al. is started such that the predetermined time is longer than a preparation time necessary for making a sensor function properly would have been obvious to one of ordinary skill in the art at the time the invention was made. This would ensure that the sensor is ready to perform when the engine is operating.

### ***Allowable Subject Matter***

Claims 4, 5, and 8 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art does not teach a delay time that is set as required by claims 4 and 5 or a preheating controller as defined in claim 8. These features, in combination with the further limitations of the claims, distinguish the claimed invention over the prior art.

### ***Response to Arguments***

Applicant's arguments filed June 13, 2006 have been fully considered but they are not persuasive.

Applicants conclude that Aoyama does not disclose starting the engine after the claimed time, as measured by a timer, has elapsed since an ignition switch is turned on, and cites the retard valve closure timing discussion of column 8, lines 27-35, as supporting evidence. However, Figure 9 and Aoyama's discussion in column 8, line 40, through column 9, line 2, does disclose starting the engine after the time has elapsed since an ignition switch is turned on. Consequently, the rejected claims are not in condition for allowance.

### ***Conclusion***

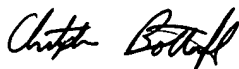
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hariku et al. US 5,884,597 and Yamaguchi et al. US 6,247,437 disclose engine start controls.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Christopher Bottorff".

Christopher Bottorff